

CLAIMS

1. A film having a high transmittance and matt property, comprising, on a transparent support, a hard coat layer incorporated therein particles of a particle size of 1.0 to 10 μm that is larger than the thickness of the hard coat layer, and a low-refractive-index layer having a refractive index of 1.45 or less and covering said hard coat layer,
- 10 wherein the film has a haze value of 1.0 % or more, and a total transmittance of light of 93.5 % or more.
2. The film having a high transmittance and matt property according to claim 1, wherein said low-
- 15 refractive-index layer is formed by incorporating therein a fluorine-containing macromolecular compound being cross-linked by heat or ionization radiation, and has a coefficient of kinetic friction of 0.2 or less.
- 20 3. The film having a high transmittance and matt property according to claim 1, wherein said hard coat layer contains a cross-linked binder polymer, and monodispersed transparent fine particles having an average particle size larger than the average thickness of the
- 25 hard coat layer and having a particle size distribution of

0.2 or less in terms of coefficient of variation.

4. The film having a high transmittance and matt property according to claim 1, wherein said hard coat layer contains a cross-linked binder polymer, and monodispersed transparent fine particles composed of a resin having a Moh's scale of hardness of less than 7, which have an average particle size larger than the average thickness of the hard coat layer and which have a particle size distribution of 0.2 or less in terms of coefficient of variation, and wherein said low-refractive-index layer is composed of a fluorine-containing compound being cross-linked with a refractive index of 1.45 or less and a coefficient of kinetic friction of 0.15 or less.

5. The film having a high transmittance and matt property according to claim 3, wherein the low-refractive-index layer is formed by incorporating therein a fluorine-containing macromolecular compound being cross-linked by heat or ionization radiation, and has a coefficient of kinetic friction of 0.2 or less.

6. The film having a high transmittance and matt property according to claim 5, wherein said hard coat layer contains a cross-linked binder polymer, and

monodispersed transparent fine particles composed of a resin having a Moh's scale of hardness of less than 7, which have an average particle size larger than the average thickness of the hard coat layer and which have a particle size distribution of 0.2 or less in terms of coefficient of variation, and wherein said low-refractive-index layer is composed of a fluorine-containing compound being cross-linked with a refractive index of 1.45 or less and a coefficient of kinetic friction of 0.15 or less.

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7. The film having a high transmittance and matt property according to claim 1, wherein said film having a high transmittance and matt property is an optical film comprising, on a transparent support, a hard coat layer and a low-refractive-index layer having a lower refractive index than that of said transparent support, laminated in this order, and wherein said hard coat layer contains a cross-linked binder polymer, and monodispersed transparent fine particles having an average particle size larger than the average thickness of the hard coat layer and having a particle size distribution of 0.1 or less in terms of coefficient of variation.

8. A polarizing plate having a high transmittance and matt property, comprising a polarizing layer and two

protective films thereon, wherein at least one of the protective films is the film having a high transmittance and matt property according to any one of claims 1 to 7, and wherein a matted layer is disposed at the opposite
5 side to the polarizing layer.

9. A liquid crystal display device, using the film having a high transmittance and matt property according to any one of claims 1 to 7.

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10. A liquid crystal display device, comprising two polarizing plates provided on both sides of a liquid crystal cell, wherein the polarizing plate provided at the back light side is the polarizing plate having a high
15 transmittance and matt property according to claim 8, the matted layer being disposed toward the back light side.